

## ABSTRACT

The invention is directed at the definition of the dynamic movement parameters of a material object during sports competitions or training and makes it possible to improve a judgment objectivity during said sports competitions. A footmark trajectory resulting from the interaction of an object with surrounding objects or environment is recorded in an infrared spectral range. The dynamic of modifications of infrared footmarks in different spectral ranges are recorded. The trajectories of shadows formed by external infrared sources are recorded. The inventive device system comprises an infrared camera, a computer and a mechanical oscillation receiver. Said infrared camera can be provided with a system of optical filters for modifying the spectral range of the sensitivity thereof.